

IN THE SPECIFICATION:

Paragraph beginning at line 11 of page 6 has been amended as follows:

According to the present invention, there is provided a method of manufacturing a semiconductor integrated circuit, in which a CMOS transistor is formed on a first conductivity type semiconductor film provided on a first conductivity type supporting substrate through an embedded insulating film, including the steps of: conducting thermal oxidation so as to reach the embedded insulating film to form a LOCOS for element separation between transistors; forming a gate oxide film of a ~~first~~ second conductivity type transistor; forming a first conductivity type impurity region reaching the embedded insulating film on the semiconductor film in a region where the ~~first~~ second conductivity type transistor is to be formed; forming a polysilicon film serving as a gate electrode of the ~~first~~ second conductivity type transistor so as to form a second conductivity type impurity region; forming a second conductivity type impurity region in an ultra-shallow portion of each of a source region and a drain region; forming a second conductivity type impurity region having a low density under the second conductivity type impurity region in the ultra-shallow portion; forming a second

conductivity type impurity region having the same density as the second conductivity type impurity region in the ultra-shallow portion under the second conductivity type impurity region having the lower density and above the embedded insulating film; forming an insulating film on the source region, the drain region, and the gate electrode; dry etching the insulating film formed on the source region, the drain region and the gate electrode so as to form a sidewall around the gate electrode; forming a second conductivity type impurity region in each of the source region and the drain region; forming an inter layer insulating film and forming contact holes in the source region, the drain region, and the gate electrode; and forming a wiring on the interlayer insulating film.

Paragraph beginning at line 17 of page 8 has been amended as follows:

Further, according to the present invention, there is provided a method of manufacturing a semiconductor integrated circuit, in which a CMOS transistor is formed on a first conductivity type semiconductor film provided on a first conductivity type supporting substrate through an embedded insulating film, including the steps of: conducting thermal oxidation so as to reach the embedded insulating film to form

a LOCOS for element separation between transistors; forming a gate oxide film of a ~~first~~ second conductivity type transistor; forming a first conductivity type impurity region reaching the embedded insulating film on the semiconductor film in a region where the ~~first~~ second conductivity type transistor is to be formed; forming a polysilicon film serving as a gate electrode of the ~~first~~ second conductivity type transistor so as to form a second conductivity type impurity region; forming a second conductivity type impurity region in an ultra-shallow portion of each of a source region and a drain region; forming a second conductivity type impurity region having a low density under the second conductivity type impurity region in the ultra-shallow portion; forming a second conductivity type impurity region having the same density as the second conductivity type impurity region in the ultra-shallow portion under the second conductivity type impurity region having the low density and above the embedded insulating film; providing a mask on the gate electrode and a part of the source region and the drain region so as to form a second conductivity type impurity region in each of the source region and the drain region; forming an inter layer insulating film and forming contact holes in the source region, the drain region, and the gate electrode; insulating film and forming a wiring on the interlayer In a transistor formed by the

above-mentioned method, a width of the portion of the drain region having a low density in a channel length direction is affected by a width of the mask. Therefore, a width in a channel length direction can be more easily controlled as compared with the case where a sidewall is provided around the gate electrode and a portion having a low density is formed in the drain region. As a result, the extension of the depletion layer in the proximity of the drain can be adjusted so as to be uniform. Accordingly, the impact ionization can be reduced in the vicinity of the body surface in the proximity of the drain or in the vicinity of the embedded insulating film.

Paragraph beginning at line 11 of page 10 has been amended as follows:

Furthermore, according to the present invention, there is provided a method of manufacturing a semiconductor integrated circuit, in which a CMOS transistor is formed on a first conductivity type semiconductor film provided on a first conductivity type supporting substrate through an embedded insulating film, including the steps of: conducting thermal oxidation so as to reach the embedded insulating film to form a LOCOS for element separation between transistors; forming a gate oxide film of a ~~first~~ second conductivity type transistor; forming a first conductivity type impurity region

reaching the embedded insulating film on the semiconductor film in a region where the ~~first~~ second conductivity type transistor is to be formed; forming a first conductivity type impurity region having a higher density than that of the ~~first~~ second conductivity type impurity region in a portion of the semiconductor film serving as the proximal region to a drain in the first conductivity type impurity region; forming a polysilicon film serving as a gate electrode of the first conductivity type transistor and forming a second conductivity type impurity region; forming a second conductivity type impurity region in each of the source region and the drain region; forming an inter layer insulating film and forming contact holes in the source region, the drain region, and the gate electrode; and forming a wiring on the interlayer insulating film. In a transistor formed by the above-mentioned method, the depletion layer is extended toward the body side in the portion having a low density of the first conductivity type impurity region in the proximity of the drain while being extended toward the drain side in the portion having a high density so as to allow the uniformization of the extension of the depletion layer in the proximity of the drain. As a result, the generation of impact ions can be reduced.

Heading at line 5 of page 13 has been amended as follows:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Paragraph beginning at line 11 of page 27 has been amended as follows:

A method of manufacturing a semiconductor integrated circuit, in which a CMOS transistor is formed on a first conductivity type conductivity type insulating film, semiconductor film provided on supporting substrate through an includes the steps of: conducting a first embedded thermal oxidation so as to reach the embedded insulating film to form a LOCOS for element separation between transistors; forming a gate oxide film of a ~~first~~ second conductivity type transistor; forming a first conductivity type impurity region reaching the embedded insulating film on the semiconductor film in a region where the ~~first~~ second conductivity type transistor is to be formed; forming a polysilicon film serving as a gate electrode of the ~~first~~ second conductivity type transistor so as to form a second conductivity type impurity region; forming a second conductivity type impurity region in an ultra-shallow portion of each of a source region and a drain region; forming a second conductivity type impurity region having a low density under the second

conductivity type impurity region in the ultra-shallow portion; forming a second conductivity type impurity region having the same density as the second conductivity type impurity region in the ultra-shallow portion under the second conductivity type impurity region having the lower density and above the embedded insulating film; forming an insulating film on the source region, the drain region, and the gate electrode; dry etching the insulating film formed on the source region, the drain region, and the gate electrode so as to form a sidewall around the gate electrode; forming a second conductivity type impurity region in each of the source region and the drain region; forming an interlayer insulating film and forming contact holes in the source region, the drain region, and the gate electrode; and forming a wiring on the interlayer insulating film. As a result, in the transistor formed on the semiconductor film, a depletion layer generated by a difference in electric potential between a drain and a body can be extended toward the body side in the portion of the drain region having a high density whereas the depletion layer can be actively extended toward the drain side in the portion of the drain region having a low density. Therefore, the electric field density in the vicinity of the body surface of the proximity of the drain or the vicinity of the insulating film can be reduced to reduce the generation of

impact ions. Furthermore, the SOI transistor conventionally has a disadvantage in that the use of a method of pulling holes generated by impact ionization out from a body terminal halves the area reduction effect. Since the generation of impact ions themselves is reduced without providing a body terminal in the SOI transistor according to the present invention, the SOI transistor according to the present invention is effective to realize the area reduction effect which is the advantage of the SOI device.

Paragraph beginning at line 13 of page 29 has been amended as follows:

Furthermore, a method of manufacturing a semiconductor integrated circuit, in which a CMOS transistor is formed on a first conductivity type semiconductor film provided on a first conductivity type supporting substrate through an embedded insulating film, includes the steps of: conducting thermal oxidation so as to reach the embedded insulating film to form a LOCOS for element separation between transistors; forming a gate oxide film of a ~~first~~ second conductivity type transistor; forming a first conductivity type impurity region reaching the embedded insulating film on the semiconductor film in a region where the ~~first~~ second conductivity type transistor is to be formed; forming a

polysilicon film serving as a gate electrode of the ~~first~~ second conductivity type transistor so as to form a second conductivity type impurity region; forming a second conductivity type impurity region in an ultra-shallow portion of each of a source region and a drain region; forming a second conductivity type impurity region having a low density under the second conductivity type impurity region in the ultra-shallow portion; forming a second conductivity type impurity region having the same density as the second conductivity type impurity region in the ultra-shallow portion under the second conductivity type impurity region having the low density and above the embedded insulating film; providing a mask on the gate electrode and a part of the source region and the drain region so as to form a second conductivity type impurity region in each of the source region and the drain region; forming an inter layer insulating film and forming contact holes in the source region, the drain region, and the gate electrode; insulating film and forming a wiring on the interlayer In a transistor formed by the above-mentioned method, a width of the portion of the drain region having a low density in a channel length direction is affected by a width of the mask. Therefore, a width in a channel length direction can be more easily controlled as compared with the case where a sidewall is provided around the gate

electrode and a portion having a low density is formed in the drain region. As a result, the extension of the depletion layer in the proximity of the drain can be adjusted so as to be uniform. Accordingly, the impact ionization can be reduced in the vicinity of the body surface in the proximity of the drain or in the vicinity of the embedded insulating film.

Paragraph beginning at line 6 of page 31 has been amended as follows:

Furthermore, a method of manufacturing a semiconductor integrated circuit, in which a CMOS transistor is formed on a first conductivity type semiconductor film provided on a first conductivity type supporting substrate through an embedded insulating film, includes the steps of: conducting thermal oxidation so as to reach the embedded insulating film to form a LOCOS for element separation between transistors; forming a gate oxide film of a first conductivity type transistor; forming a ~~first~~ second conductivity type impurity region reaching the embedded insulating film on the semiconductor film in a region where the ~~first~~ second conductivity type transistor is to be formed; forming a first conductivity type impurity region having a higher density than that of the ~~first~~ second conductivity type impurity region in a portion of the semiconductor film serving as the proximal

region to a drain in the first conductivity type impurity region; forming a polysilicon film serving as a gate electrode of the first conductivity type transistor and forming a second conductivity type impurity region; forming a second conductivity type impurity region in each of the source region and the drain region; forming an inter layer insulating film and forming contact holes in the source region, the drain region, and the gate electrode; and forming a wiring on the interlayer insulating film. In a transistor formed by the above-mentioned method, the depletion layer is extended toward the body side in the portion having a low density of the first conductivity type impurity region in the proximity of the drain while being extended toward the drain side in the portion having a high density so as to allow the uniformization of the extension of the depletion layer in the proximity of the drain. As a result, the generation of impact ions can be reduced.